IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appln No.:	10/661,177	)	Confirmation No. 8291
Applicants:	Steven Carl Crusius et al.	)	
Filed:	September 12, 2003	)	
For:	DC POWER BACKUP	)	This Appeal Brief was electronically filed using the U.S. Patent and Trademark Office's EFS Web on April 24, 2008
Group Art Unit:	2836	)	
Examiner:	Adi Amrany	)	
Docket No.:	5569/79287	)	
Customer No.:	22242	)	

APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Pursuant to 37 C.F.R. §41.37, the Applicants hereby respectfully submit the following Brief in support of their appeal.

(1) Real Party in Interest

The real party in interest is The Chamberlain Group, Inc., a Connecticut corporation having a primary place of business in Elmhurst, Illinois.

(2) Related Appeals and Interferences

There are no related appeals or interferences known to the Appellants, the Appellants' legal representative, or assignee that will directly affect, or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

Claims 2-11 are pending and presently stand finally rejected and constitute the subject matter of this appeal. Claim 1 was previously cancelled.

(4) Status of Amendments

No post-final amendments have been submitted.

(5) Summary of Claimed Subject Matter

A concise explanation of the subject matter of the independent claims appears as follows (with corresponding references to the published specification by page and line number (or paragraph numbering where appropriate) and to the drawing(s) (if any) by figure number and reference characters.[1]

Independent Claims Subject Matter Map

Claim 10

A battery backup apparatus for use with a barrier movement operator comprising:	FIG. 1[2], 0007[3], 0011
a DC voltage supply having a mains input voltage;	FIG. 1, element 17, 0007
a DC power connection from the DC voltage supply to a barrier movement control;	FIG. 1, connections 21 and 23, 0007, 0008, 0009
a battery having first and second terminals;	FIG. 1, element 37, 0010
a first conduction path and a second conduction path connected to the DC voltage supply;	FIG. 1, connections 21, 25, 33 and 35, 0010, 0011

1 There are no means plus function (or step plus function) recitations in any of the claims involved in this appeal, and therefore there is no identification of any corresponding structure, material, or acts in the specification in this regard. It will be understood that in some instances the content of a given referenced paragraph may additionally contain content that is tangential or even irrelevant to the claimed subject matter. It will also be understood that this summarization of the claimed subject matter is, in fact, a "summary" and that the applicant does not represent or intend that this brief presentation, or the accompanying references to the drawings and the specification, comprises an exhaustive presentation in this regard. As always, the claims are to be viewed and interpreted in view of the context of the entire specification sans the Abstract.

2 With all of the remaining figures being relevant in one degree or another as well.

3 With most of the rest of the specification being relevant in one degree or another as well.

a battery charging circuit for receiving a DC voltage from the DC voltage supply via the first conduction path and the second conduction path and for charging the battery when the DC voltage from the DC voltage supply exceeds a predetermined voltage; and	FIG. 1, element 41, 0010
a third conduction path comprising a unidirectional isolation device connecting a battery DC voltage from the first battery terminal to the DC voltage supply via the first conduction path when mains voltage to the mains voltage input fails.	FIG. 1, element 43 and the connection path including this element, 0011

(6) Grounds of Rejection to be Reviewed on Appeal[4]

Claims 2-8 and 10-11 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0063715 to Peplinski ("Peplinski") in view of U.S. Patent No. 6,225,708 to Furukawa ("Furukawa"). Claim 9 was rejected under 35 U.S.C. §103(a) as being obvious over Peplinski in view of Furukawa and U.S. Patent No. 5,844,328 to Furst ("Furst").

(7) Argument

Rejections Under 35 U.S.C. 112

None.

Rejections under 35 U.S.C. 102

None.

4 The Applicants note that a non-statutory objection of record was made by the Examiner. In particular, claim 10 was objected to because "having a mains input voltage" was allegedly unclear. The Examiner asserted that the phrase did not sufficiently distinguish between an AC input to the DC voltage supply or the output of the DC voltage supply. However, contrary to the Examiner's assertions, the term "mains" is well understood to mean an AC power supply input. See http://en.wikipedia.org/wiki/Mains_electricity. Consequently, the Applicants submit that this objection is not well founded. In any case, since this is a non-statutory objection, the Applicants submit that no further elaboration concerning this objection is required here.

Rejections under 35 U.S.C. 103

Claims 2-8 and 10-11 are not Unpatentable Over Peplinski and Furukawa

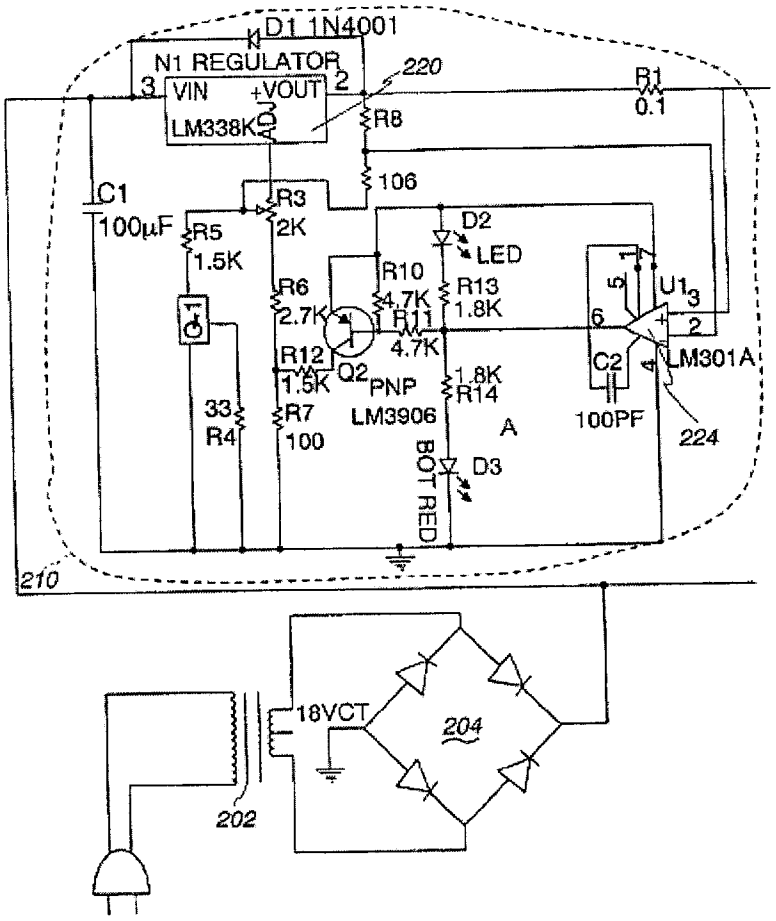
Claims 2-8 and 10-11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Peplinski in view of Furukawa. Claim 10 is an independent claim and claims 2-8 and 11 depend directly or indirectly from claim 10.

Independent claim 10 recites:

> A battery backup apparatus for use with a barrier movement operator comprising:
> a DC voltage supply having a mains voltage input;
> a DC power connection from the DC voltage supply to a barrier movement control;
> a battery having first and second terminals;
> a first conduction path and a second conduction path connected to the DC voltage supply;
> a battery charging circuit for receiving a DC voltage from the DC voltage supply via the first conduction path and the second conduction path and for charging the battery when the DC voltage from the DC voltage supply exceeds a predetermined voltage; and
> a third conduction path comprising a unidirectional isolation device connecting a battery DC voltage from the first battery terminal to the DC voltage supply via the first conduction path when mains voltage to the mains voltage input fails.

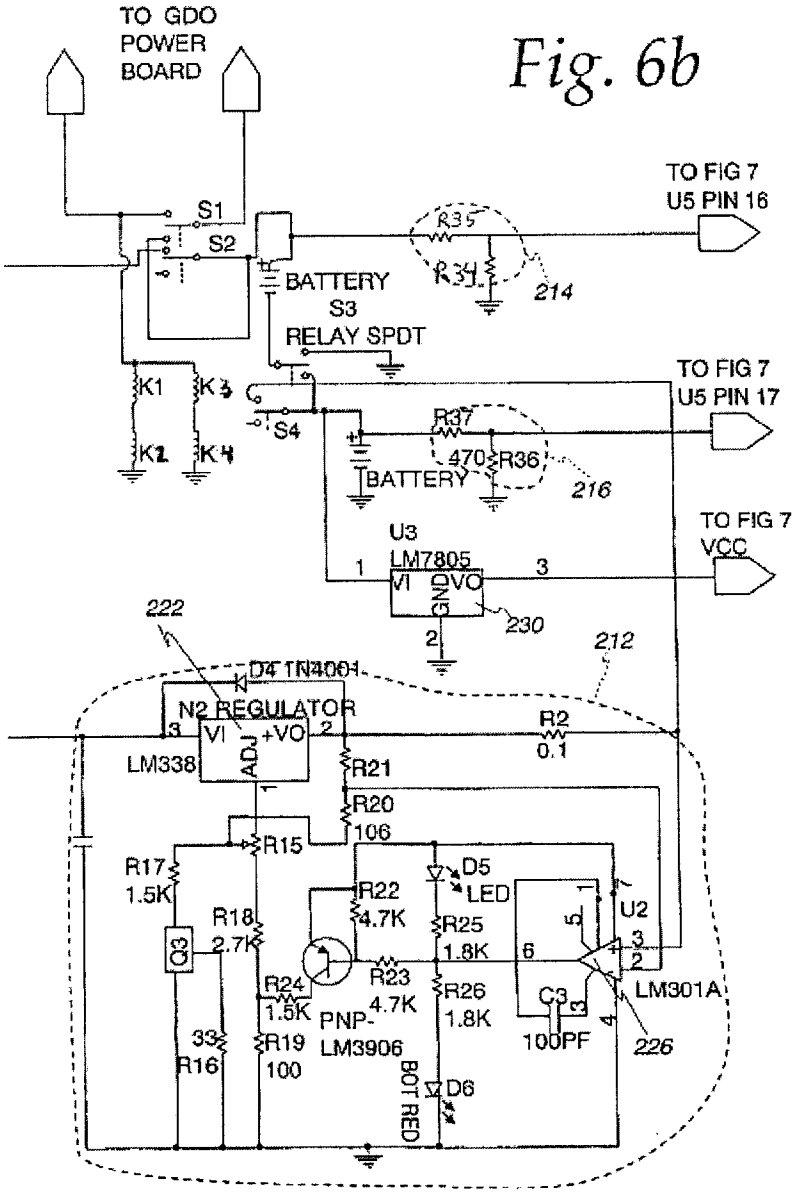
The Applicants assert that claims 2-8 and 10-11 are allowable over the proposed combination for the reasons set forth below. More specifically, Peplinski discloses a movable barrier operator with a backup battery monitoring and notification device. Peplinski discloses the use of one diode, D1, which prevents a battery B1 from backfeeding through regulator 220. See Peplinski, paragraph 42. As described below, Peplinski also discloses that certain switches must be opened and others must be closed when switching from charging a backup battery to using the backup battery to power a garage door operator. See FIG. 6a of Peplinski reproduced below for the convenience of the reader.

Fig. 6a



Peplinski shows that the supplying of battery back-up power is controlled by switches S1, S2, S3, and S4. See FIG. 6b of Furukawa reproduced below for the convenience of the reader. During ordinary operation of the garage door operator (no mains power failure), the batteries B1 and B2 are connected to the battery chargers 210 and 212 and this allows charging. When the garage door operator experiences a loss of external power, this loss of power cycles relays K1, K2, K3, and K4 to operate the corresponding switches S1, S2, S3, and S4. In this situation, the batteries B1 and B2 are disconnected from the battery chargers 210 and 212. Switches S2 and S4 are switched to the open position to disconnect batteries B1 and B2 from their respective battery chargers 210 and 212. Then, back-up power is supplied to the garage door operator components. Switch S1 is closed to connect the batteries

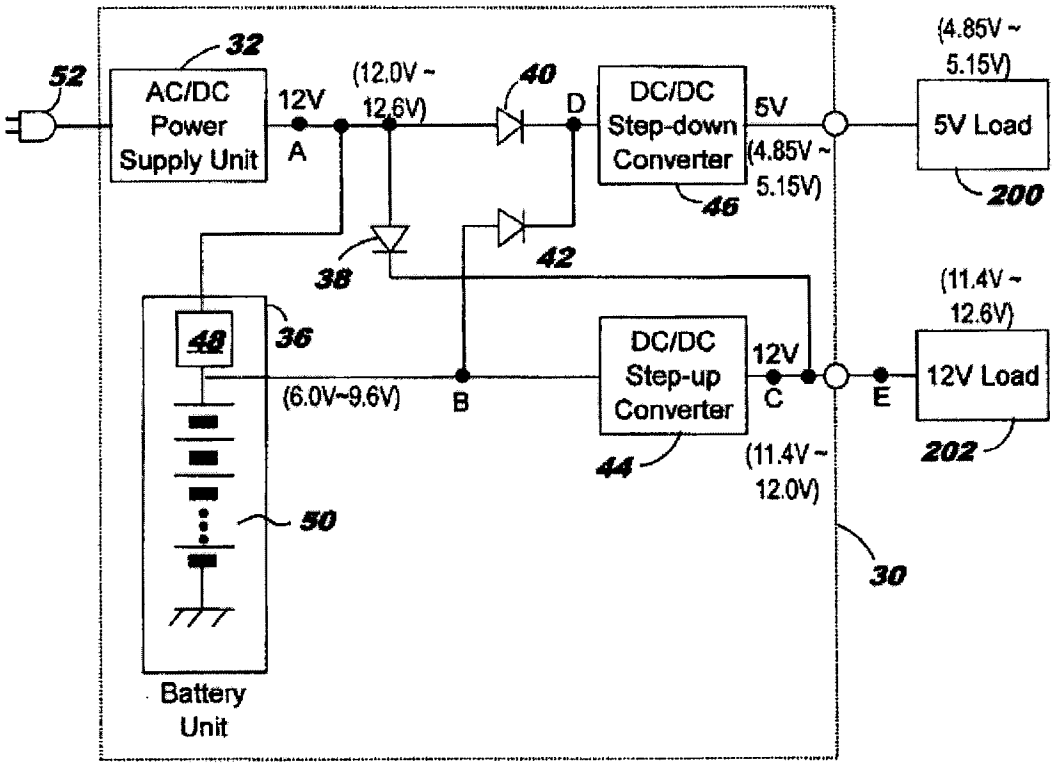
B1 and B2 to the garage door operator components and switch S3 is closed to connect the batteries B1 and B2 to each other so that they operate in series. See Peplinski, paragraphs 37-38.



As admitted by the Examiner "Peplinski does not expressly disclose the isolation device connects the battery and the DC voltage supply during mains voltage input failure."

However, the Examiner asserted that Furukawa discloses these missing claim elements. More specifically, the Examiner asserted that Furukawa discloses a third connection path (connection between nodes B and D) including a unidirectional isolation device (element 42 of Furukawa) connecting a battery DC terminal to the DC voltage supply (element 32 of Furukawa) via a first connections path (connection between nodes A and D) when the mains input fails. See FIG. 2 of Furukawa (reproduced below for the convenience of the reader).

FIG. 2



The Applicants respectfully disagree with the Examiner's conclusions. As can be seen in FIG. 2 of Furukawa, the connection path from node A to node D includes a diode 40. The circuit also includes a connection between nodes B and D with a diode 42. The latter diode 42 will become activated and node D of the circuit will assume a voltage that varies within an allowable range of non-zero values. See Furukawa, col. 7, lines 23-42.

Under these circumstances, the first mentioned diode 40 will be deactivated. More specifically, as explained by Furukawa "while the normal [i.e., mains] power supply is being stopped, ***diode 40 prevents an output voltage of the battery 50 from being applied to the power supply unit 32***." Col. 8, lines 3-6, emphasis added. In other words, with the mains supply turned off, the connection between nodes A and D is non-conductive and diode 42 is not connected to the DC power supply.

Consequently, Furukawa does not teach or suggest a third conduction path with a unidirectional isolation device connecting a battery DC voltage from the first battery terminal to the DC voltage supply via the first conduction path when mains voltage to the mains voltage input fails all as recited in claim 10. Accordingly, no combination of Peplinski with Furukawa, regardless of how obvious or unobvious that combination might be, will yield the apparatus set forth in independent claim 10. Since the above-mentioned claim elements are not taught or suggested by either Peplinski or Furukawa, the Applicants assert that claim 10 is allowable over the proposed combination.

Claims 2-8 and 11 ultimately depend upon claim 10, which has been shown to be allowable above, and therefore, these claims are also allowable. In addition, they introduce additional content that, particularly when considered in context with the claim from which they depend, introduce additional incremental patentable subject matter. Accordingly, the Applicants reserve the right to present further arguments in the future with regard to these dependent claims if independent claim 10 is found to be unpatentable.

Claim 9 is Allowable Over Peplinski, Furukawa, and Furst

Claim 9 was rejected under 35 U.S.C. §103(a) as being obvious over Peplinski in view of Furukawa and Furst. Claim 9 depends upon claim 10.

Peplinski and Furukawa have been discussed above. Furst does not make up for the deficiencies of Peplinski or Furukawa. Specifically, Furst discloses a backup device for an electric appliance that includes a switch 72 that allows a battery 12 to be disconnected from an appliance 20. However, Furst does not teach or suggest both a first and second conduction path connected to the DC voltage supply, and a third conduction path with a unidirectional

isolation device connecting a battery DC voltage from the first battery terminal to the DC voltage supply via the first conduction path when mains voltage to the mains voltage input fails all as recited in claim 9. To the contrary, Furst does not even include a third conductive path, much less a conductive path that includes a unidirectional isolation device such as a diode.

Consequently, the Applicant asserts that claim 9 is allowable over the proposed combination of Peplinski, Furukawa, and Furst. In addition, claim 9 introduces additional content that, particularly when considered in context of claim 10 from which it depends, introduces additional incremental patentable subject matter. Accordingly, the Applicants reserve the right to present further arguments in the future with regard to these dependent claims if independent claim 10 is found to be unpatentable.

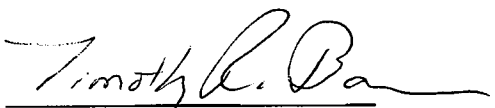
Conclusion

Claims 2-11 are in suitable condition to support allowance and have been shown to be allowable over the prior art of record. The applicant therefore respectfully seeks a reversal of the Examiner's rejection of these claims.

Respectfully submitted,

Fitch, Even, Tabin & Flannery

Date: April 24, 2008

By: 
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(8) Claims Appendix

1. (Canceled)

2. The battery backup apparatus of claim 10 comprising an audible signaling device.

3. The battery backup apparatus of claim 2 comprising an apparatus for enabling the audible signaling device in response to current flowing from the battery to the DC voltage supply via the unidirectional isolation device.

4. The battery backup apparatus of claim 10 comprising one or more visual signaling devices.

5. The battery backup apparatus of claim 10 wherein the battery charging device comprises circuitry for limiting a current applied to the first battery terminal.

6. The battery backup apparatus of claim 5 wherein the circuitry for limiting, limits the current to an amount less than a predetermined maximum amount.

7. The battery backup apparatus of claim 10 comprising cut out circuitry for disconnecting the first battery terminal from the unidirectional isolation device.

8. The battery backup apparatus of claim 10 comprising cutout circuitry for disconnecting the first battery terminal from the battery charging circuit.

9. The battery backup apparatus of claim 10 comprising circuitry for selectively disconnecting the first battery terminal from the first conduction path when the first conduction path is disconnected from the DC voltage supply.

10. A battery backup apparatus for use with a barrier movement operator comprising:

a DC voltage supply having a mains input voltage;

a DC power connection from the DC voltage supply to a barrier movement control;

a battery having first and second terminals;

a first conduction path and a second conduction path connected to the DC voltage supply;

a battery charging circuit for receiving a DC voltage from the DC voltage supply via the first conduction path and the second conduction path and for charging the battery when the DC voltage from the DC voltage supply exceeds a predetermined voltage; and

a third conduction path comprising a unidirectional isolation device connecting a battery DC voltage from the first battery terminal to the DC voltage supply via the first conduction path when mains voltage to the mains voltage input fails.

11. The battery backup apparatus of claim 10, wherein the predetermined voltage exceeds 20 volts.

(9) Evidence Appendix

None.

(10) Related Proceeding Appendix

None